

ing advances in higher education, but this trend will not continue unless women are provided opportunities to enhance their professional reputations. One such opportunity is to become an active member of the ASHS Women in Horticulture Working Group and other Working Groups. In 1983, a questionnaire was sent to most of the women who were Members of ASHS; but only 89 of some 300 responded. How can women expect to advance if they do not help themselves and accept leadership roles?

One of the purposes of the Women in Horticulture Working Group is to encourage participation by *both* sexes in exploring problems

faced by professional horticulturists in the work environment. One of the main objectives is to bridge the transitional gap from PhD to assistant professor and from assistant professor to associate professor. To help attain this objective, the Working Group program for the 1984 ASHS Annual Meeting is "Acceptance of the Young Professional in the Work Sphere". This topic will be addressed by A.A. De Hertogh (department chairman at North Carolina State Univ.), Jane Price McKinnon (an established female horticulturist at the Univ. of Minnesota), and Sylvia Blankenship (an assistant professor at North Carolina State Univ.). The topics dis-

cussed at this meeting will be directed toward young professionals. We want to invite and encourage *all* young professionals (male or female) to attend!

This newly formed Working Group needs full active participation from every female Member of ASHS. We also need participation from male members of ASHS interested in the advancement of horticulture's future. We cannot accomplish our objectives by going in different directions.

#### Literature Cited

1. Bruer, J.T. 1983. Women in science: lack of full participation. *Science* 221(4618):1339.

## Council for Professional Horticulture: A Proposal

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It is time for horticulturists to control their own destinies. Too often, we have assumed a defensive posture with respect to our academic and research programs. Those professions that have developed systems for accrediting their academic programs—engineering, landscape architecture, forestry, medicine, veterinary medicine—seem to have more clout than horticulture. Yet, horticulture is no less of a profession and must be recognized as such immediately if we are to maintain and enrich courses, degree programs, and opportunities for our graduates.

We can begin controlling more our our destiny by establishing a Council for Professional Horticulture (CPH). Through this Council we can build the professional image and recognition that horticulture must have if it is to serve the public.

The proposal for the Council came from the ASHS Advisory Council in its 1979 report to the ASHS Board of Directors at Ohio State Univ. Subsequently, the Committee on Accreditation of Horticulture Teaching Programs was established. Originally, the Committee focused on broad undergraduate programs in horticultural science to prepare students for as many opportunities as possible, and to discourage discipline fragmentation into narrowly defined rigid curricula serving only a part of horticulture. The Committee felt that the best course of action would be to bring CPH into being and charge it to interpret horticulture in the broad sense. Numerous discussions and consequent revisions have refined the proposal for a Council so that it is now ready for serious consideration by the ASHS membership (copies of the draft



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proposal for CPH may be obtained by writing the author of this article).

#### Objectives of CPH

The proposed CPH is intended to accomplish the following objectives: 1) promote and advance all phases of horticultural education and develop well-educated horticulturists; 2) develop and maintain accreditation standards for each undergraduate program; 3) assist departments in planning and implementing these standards; 4) cooperate with state licensing agencies that now exist or will be developed in the future to meet professional and industry requirements for qualified horticulturists; 5) provide a service that will match qualified horticulturists with prospective employers; 6) inform the public of programs that meet accreditation criteria; and 7) provide guidance to administrators and department heads for improving existing educational programs and developing future programs in horticulture.

#### Accreditation of programs

The purpose of CPH is to accredit under-

graduate degree programs of substance rather than departments. Thus, departments may request a review of certain degree programs and omit others; e.g., the Dept. of Horticultural Sciences at Texas A&M Univ. offers a degree in floriculture and another in horticulture. Other universities have independent departments for fruit crops and vegetable crops and their separate degrees would be subject to separate accreditation.

Considerable debate has led to the conclusion that the word "horticulture" means different things to different people. Some have maintained that a program that excludes courses in one of the 4 segments that make up the complete discipline of horticulture (pomology, olericulture, ornamentals, and floriculture) can graduate a horticulturist. Some have stated that courses in only one of these segments plus the supporting disciplines can produce horticulturists. The majority have contended from the beginning, however, that a horticulturist must have at least one course in all 4 segments. A degree program requiring only pomology at the exclusion of the other segments of horticulture should be named "pomology" and graduate pomologists. Specialized programs in any one of the other 3 areas should be labeled accordingly.

Some degree programs that have become so basic that they do not develop the historic skills required in horticulture may not qualify as horticulture programs. There is always the danger that members of horticulture departments may become so caught up in their pursuit of research grants that they lose the true flavor of horticulture. Horticulture is not strictly biochemistry, physiology, genetics, or any number of other related disciplines, but a combination of them all. We must remember that a growth regulator is a tool for maintaining a compact flowering pot plant,

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for advancing the ripening date of a fruit tree, or for inducing female flowers on a cucumber rather than an interesting mechanism involving enzymes, cofactors, and membrane permeability. If we stop with the building blocks we may become important basic scientists but we are not horticulturists in the true sense. Perhaps there is a need for basic scientists in horticulture departments, but not at the expense of horticulture. We cannot train our students at the exclusion of the art and science of horticulture, and expect them to enter the commercial horticulture industry as knowledgeable graduates. Even if these students pursued graduate studies and emerged as PhD's, there is no guarantee that they could teach production horticulture.

### Curricula

In general, the minimum curriculum should include courses in communication skills, social sciences, humanities, and business, in addition to technical training. The technical courses in physical and biological sciences should include general chemistry (with laboratory), organic chemistry, general botany (with laboratory), algebra, plant physiology (with laboratory), genetics, and an option among physics, engineering, computer science, and statistics. Agricultural sciences should include economics, soils (with laboratory), entomology (with laboratory), plant pathology (with laboratory), and an option among soil fertility, microbiology, plant nutrition, and weed science. Horticultural science should include an introductory course, plant propagation, greenhouse management, and about 7 additional courses from pomology, olericulture, ornamentals, and floriculture.

### Faculty training and competence

Evidence of quality instructions occurs when teaching helps students distinguish between acquisition and examination of information. A significant element of the proposed CPH is to pay close attention to the preparation of faculty. Numerous people teach college horticulture courses who have little or no experience and are but "one step" ahead of the students, teaching out of the book. CPH could provide incentives for such individuals to obtain degrees in horticulture or to gain practical experience in areas in which they are teaching. The heart of any educational program is a qualified, forward-thinking faculty that can present an overall scholarly atmosphere.

The competence of the faculty may be judged by such factors as: level of academic and practical horticultural training; diversity of backgrounds; experience in teaching; interest in and enthusiasm for developing effective teaching methods; level of scholarship as shown by scientific and professional publications; degree of participation in professional, scientific, and other learned societies; recognition by students for professional acumen; and personal interest in the students' curricular and extracurricular activities.

### Teaching loads

Horticulture teaching loads should be com-

parable with the existing climate for research and professional development. Faculty Teaching Equivalents (FTE) should include credit for student advising as well as for classroom teaching. Faculty members, regardless of their individual capabilities, cannot function effectively either as teachers or seekers of new understanding if they are burdened heavily with classroom and research assignments. Stimulation of student minds presupposes constant and energetic faculty study of new developments in areas of technology and science and in areas of instructional motivation. Provisions should be made to encourage faculty to gain new information and to keep abreast of new developments. Sabbatical leaves for faculty have proven very effective in renewing faculty motivation and excellence.

### Review of programs

Review of the degree programs presented for accreditation should be made by a competent committee of horticulturists from the private and public sectors. Perhaps such visits could be incorporated with a review of existing research and extension programs. If

research and extension are not a part of the institution's program, the lack of these land-grant-type activities should not be construed as deficiencies.

### Time for action

The establishment of a Council for Professional Horticulture would make it possible for horticulturists to be recognized as members of a profession dedicated to creative, logical, and ethical use of biological and physical sciences to sustain life and produce an improved standard of living through horticulture.

The CPH proposal should be studied by ASHS Members prior to the 1984 Annual Meeting in Vancouver, B.C. The ASHS Board of Directors will have an opportunity to refine the proposal and determine if it should be presented to the membership at the Annual Business Meeting.

It is in the best interest of every ASHS Member to be a part of a recognized profession. Resources for our growth and development then may increase and our graduates, as a consequence, should receive improved compensation for their efforts.

## LETTERS

### History of Horticulture

I wish to call attention to a collection of reference notes and citations, now found in the Michigan State Univ. (MSU) Archives, that belonged to the late Fred Bradford. It appears that these handwritten notes had been made by Bradford while on the staff at MSU and later while at the USDA/Plant Introductions, Beltsville, Md. His references and citations on the history of horticulture and plant science are stored in folders, organized by country, and chronologically, more or less. They are written mainly in English, but some are in French or German. They were intended, it seems, for a book which never materialized.

Bradford was an excellent scholar and one of the very few who has ever taught a college-level course on the history of horticulture. It is said that he did it well. His notes, therefore, could prove valuable to any scholars researching the subject, or intending to write a history of horticulture.

Persons interested in this Bradford file should contact Frank Dennis, Dept. of Horticulture, Michigan State Univ., East Lansing, MI 48824. It was Frank who was responsible for saving the Bradford papers and depositing them in the MSU Archives.

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### "Dean of World Pomology" Seeks U.S. Teaching Opportunity

Dr. Steve A. Pieniazek, retired director of the Institute of Pomology in Skierniewice, Poland, tells us he would be interested in coming to the United States and teaching pomology on a temporary basis. There is an increasing need for teachers in pomology. It is possible he could fill an opening caused by retirement while the department is looking for a replacement.

Pieniazek is a graduate of Cornell Univ. in pomology. He worked at the Univ. of Rhode Island before returning to Poland. He speaks excellent English and often is referred to as the "Dean of World Pomology", based on his travels, particularly in socialistic countries (China, U.S.S.R., and those in Eastern Europe). He has written several pomology books and is well-versed in fruit tree rootstocks and hardiness. He speaks several languages.

Pieniazek would be a fine addition to a pomology teaching program. He has an American-born daughter in New Orleans. His wife, Janina, speaks English well and is a recognized plant scientist.

Pieniazek's current address is: Botanical Garden of the Polish Academy of Sciences, ul. Prawdziwka 2, 00-973 Warsaw, Poland.

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